

American Airpower in the 21st Century: Reconciling Strategic Imperatives with Economic Realities*

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The challenge is balancing support for the warfighter in an era of persistent conflict, where good-enough solutions are needed in months, weeks, or better yet, tomorrow, with an entirely different dynamic for conventional and strategic programs, which can take many years to achieve the desired level of technological overmatch. Reconciling these two paradigms is one of the most vexing challenges facing our military institutions.¹

Secretary of Defense Robert Gates

“Vexing” is certainly the right word to describe the state of resource allocation in the national security community. Despite still sizable defense budgets,² serious economic constraints³ combine with a wide range of complicated threats to create extremely difficult choices for policy makers. To help them work through the decision-making process, Congress mandates Quadrennial Defense Reviews (QDRs).⁴ QDRs “are intended to guide the services in making resource allocation decisions when developing future budgets.”⁵

The 2010 QDR rightly insists that “America’s interests and role in the world require armed forces with *unmatched* capabilities.”⁶ Recent resource decisions, however, do not provide much comfort for those who believe that the high-tech equipment—to include especially advanced airpower⁷—provides the most efficient, effective, and flexible means of addressing the most dangerous security challenges of the twenty-first century.

Indeed, this essay argues that such forces are deserving of stronger resource support than is currently the case. It contends that misapprehensions of key issues—reflected in the QDR and elsewhere—are eroding the United States’

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“unmatched” capabilities, at least insofar as the air and space domains are concerned.

Assessing Risk

An (and perhaps “the”) essential issue of defense planning is the proper assessment of risks. Appropriately, the QDR says that “risk management is central to effective decision-making and is vital to our success.”⁸ The 2008 *National Defense Strategy* (NDS)⁹ properly defines risk “in terms of the potential for damage to national security combined with the probability of occurrence *and a measurement of the consequences should the underlying risk remain unaddressed.*”¹⁰ The reference to “consequences” is key because, as one expert puts it, a “probability factor tells us nothing about risk until coupled with a consequence.”¹¹

However, the NDS, the QDR, and other government pronouncements make it clear that *probability* is the defining factor underpinning resource allocation. For example, the NDS claims that “[f]or the foreseeable future, [the strategic] environment will be defined by a global struggle against a violent extremist ideology that seeks to overturn the international system.”¹² The gravity of the potential consequences garners markedly less attention.

The QDR (and other expressions of contemporary defense thinking) rarely focus on the implications of the differences between serious threats and truly existential ones. While we may be in an era of persistent conflict, that circumstance is more usual than unusual as there have been fewer than a hundred years in the last ten thousand when there “has not been armed conflict someplace.”¹³ Moreover, the nature of today’s “persistent” conflicts are generally low-intensity, “irregular” wars.¹⁴ Although “insurgencies, civil wars and terrorist acts are always more common than large-scale interstate wars,” says analyst William Hawkins, are such conflicts, he asks, the “kind of warfare the United States needs to fight?”¹⁵

Of course, no one wants to see a repeat of the terrible events of 9/11, when a group of nonstate actors murdered over three thousand Americans. But to what degree should vicious acts by nonstate actors define defense resource allocation? Consider that in the years since the 9/11 tragedy over one hundred thousand Americans were murdered by other nonstate actors (typically common criminals).¹⁶

No doubt terrorism is a crucial concern, but risk-management experts John Mueller and Mark G. Stewart conclude from a survey of many studies that the risk of terrorism is “hardly existential” and is, in fact, “so low that spending further to reduce its likelihood or consequences is scarcely justified.”¹⁷ Although they understand the political pressure on policy makers, Mueller and Stewart maintain it does not relieve leaders “of their responsibility to expend public funds wisely [or] to inform the public about the risk that terrorism actually presents.”¹⁸ Regrettably, the QDR provides no such information.

Terrorism involving a weapon of mass destruction (WMD) is certainly a special concern. However, experts believe the chances of terrorists successfully using a nuclear weapon are “vanishingly small.”¹⁹ In any event, neither of “today’s wars”²⁰ in Iraq and Afghanistan that are devouring defense resources are

direct counters to that threat. In fact, the evidence shows that Iraq's WMD dreams ended in 1998 with Operation Desert Fox's air strikes.²¹ Concerning Afghanistan, Professor Andrew Bacevich argued in late 2008, that—ironically—the “chief effect of military operations [there] has been to push radical Islamists across the Pakistan border . . . contributing to the destabilization” of that nuclear-armed country.²²

Regardless, even assuming such a dreadful scenario could occur, the United States would still survive. Only a nation-state possessing *numerous* WMDs and effective delivery vehicles could have the resources to stage an attack of sufficient dimensions to put the survival of the United States in jeopardy. In that respect, Ilan Berman of the American Foreign Policy Council warns that “practically every nuclear weapon state is engaged in a serious modernization of its strategic arsenal” while the United States’ continues to “atrophy.”²³

Nonetheless, the QDR very decidedly gives priority to the *non*existential threat of terrorism. Declaring that the “epicenter of the terrorist threat to the United States is rooted in Afghanistan and Pakistan,”²⁴ the QDR’s top objective is to “prevail in today’s wars.”²⁵ Operations in Afghanistan (and Iraq) will, the QDR informs, “substantially determine the size and shape of major elements of U.S. military forces for several years.”²⁶ That will be the case because to perform those operations, the United States has selected the very manpower-intensive and largely low-tech approach set forth in the Army and Marine Corps’s *Counterinsurgency* (COIN), Field Manual 3-24 (FM 3-24).²⁷

The Impact of FM 3-24

Introduced in 2006, FM 3-24 is largely the product of analysis of Cold War–era COIN conflicts.²⁸ Airpower technology of that period had little to offer counterinsurgents, so FM 3-24 does not internalize fully what today’s aerial platforms can provide in terms of persistent surveillance and precision strike. This is unfortunate because their impact on contemporary operations is so dramatic that retired Army general Barry McCaffrey insists that the very nature of warfare has been “fundamentally changed.”²⁹

Instead of reflecting that fundamental change, the doctrine actually marginalizes airpower into a five-page annex that itself discourages its kinetic use.³⁰ In fairness, FM 3-24 seems to disdain the use of force generally. Indeed, Steven Coll wrote in the *New Yorker* that

[FM 3-24 is popular] among sections of the country’s liberal-minded intelligentsia. This was warfare for northeastern graduate students—complex, blended with politics, designed to build countries rather than destroy them, and fashioned to minimize violence. It was a doctrine with particular appeal to people who would never own a gun.³¹

As such, FM 3-24 acquired a public persona as being a “softer approach that won allies” after it was implemented in Iraq in 2007.³² Deriding the notion of “killing and capturing” insurgents, advocates of FM 3-24 see it as being all about winning “hearts and minds.” In truth, killing and capturing played a decisive role in pacifying Iraq in 2007.

Notwithstanding the “surge” of U.S. troops, it took the incarceration of tens of thousands of Iraqis³³ and a fivefold increase in air strikes to produce success.³⁴ And those air strikes involved a lot of killing;³⁵ one source even claimed that “90% of the terrorists [who were] killed [were] killed by airpower.”³⁶

Furthermore, it appears that FM 3-24’s reputed “softer” approach actually won few hearts for U.S. forces. Despite the increased security, a 2008 survey of Iraqis found that 61 percent still believed that the presence of U.S. forces made security worse in their country, and of those who thought the security was improved, only 4 percent believed U.S. forces deserved the most credit.³⁷

Resource Implications

The extension of FM 3-24’s approach to Afghanistan has profound resource implications for the whole armed forces. Specifically, implementing it requires expensive deployments of considerable numbers of ground forces. For example, the doctrine calls for a “minimum troop density” of twenty counterinsurgents per one thousand residents.³⁸ Because FM 3-24 envisions COIN as overwhelmingly the province of soldiers and Marines,³⁹ both services have grown significantly to support the doctrine.⁴⁰ The Army alone is due to swell its ranks to 569,000 active-duty soldiers.⁴¹

The perception that ground forces are “stressed . . . disproportionately” by “multiple combat tours” drives the manpower increase.⁴² The facts are, however, more complicated because the COIN doctrine requires a special kind of troop. Quoting COIN expert David Galula, FM 3-24 says the “soldier must be prepared to become . . . a social worker, a civil engineer, a school teacher, a nurse, a boy scout.”⁴³

This creates a difficult challenge for the Army because relatively few service personnel are suitable for these diverse, graduate-level roles. Although more than 50,000 soldiers have deployed three or more times, it is also true that nearly 237,000 soldiers in the active-duty Army have *never* deployed, and of the 310,000 who have, nearly 155,000 of those have only deployed once.⁴⁴ Only a small percentage of the Army can be said to be genuinely overstressed.

The expense of this additional manpower is staggering. Personnel costs generally are rising so radically that Pentagon officials recently told the *Washington Post* that the Department of Defense (DoD) was facing “fiscal calamity” because the “government’s generosity [toward military personnel] is unsustainable.”⁴⁵ Additionally, the price tag of *deploying* troops to “today’s wars” is also rising rapidly; the cost of sending just one soldier to Afghanistan is now about \$1 million.⁴⁶

Such expenditures inevitably leave DoD “with less money to buy weapons.”⁴⁷ Spending on personnel “eats away” at the ability to develop and acquire sufficient numbers of the high-tech weaponry upon which airpower is especially dependent.⁴⁸ Predictably, the Air Force has been a target for budget cutters for some time,⁴⁹ and the effects are showing. Today’s Air Force is increasingly geriatric by warplane standards: its F-15 fighters average twenty-five years old, KC-135 tankers average forty-seven years of service, and the typical B-52 bomber will celebrate its forty-eighth birthday this year.⁵⁰

Although the QDR repeatedly expresses concern about potential adversaries fielding antiaccess capabilities,⁵¹ the production of the Air Force's premier counter to that challenge—the F-22—was terminated. In acquiescing to capping the program at 187 fighters, Secretary of the Air Force Michael Donley and chief of staff General Norton Schwartz both acknowledged that the Air Force had previously concluded that a 243-aircraft F-22 fleet “would be a moderate-risk force.”⁵² They agreed to the lower number mainly due to “zero-sum” budget pressures.⁵³

Some believe the acquisition of the F-35 Joint Strike Fighter (JSF) obviates the need for the F-22. Actually, many airmen consider the F-22 a *much* more capable aircraft, especially because of its “less advertised capabilities as an airborne command and control node, an intelligence, surveillance, and reconnaissance sensor package and information warfare weapon.”⁵⁴ Furthermore, *Aviation Week* quoted Brigadier General Peter Pawling of the Hawaii National Guard in the summer of 2009 as saying:

It's just that the F-35 and F-22 are such different airplanes. . . . There are those who think you can simply build more F-35s. . . . But the F-22 is one of those once-in-a-lifetime airplanes. . . . If we had a major conflict [against someone with advanced air defenses], I can't imagine going in there with anything but an F-22.⁵⁵

In a 2009 letter to Senator Saxby Chambliss, the then commander of Air Combat Command, General John Corley, insisted that there were “no studies” to justify the 187 figure.⁵⁶ In his judgment, 187 F-22s was a “high risk” number. The *Christian Science Monitor* reported that in response Air Force officials simply said that the “service must spend more of its limited resources on remote controlled aircraft—used heavily in today's wars.”⁵⁷

This illustrates one of the Air Force's main quandaries. As Vice Admiral William R. Burke wrote in *Proceedings*, the Air Force and Navy must serve as the nation's “strategic reserve” against “high-end competitors” armed with high-tech weaponry, yet at the same time provide full support to “today's wars.”⁵⁸ Parenthetically, it is not lost on airpower supporters concerned about high-end threats that Secretary Gates is adamant that “any major weapons program, to remain viable, will have to show some utility and relevance to . . . irregular [warfare] campaigns.”⁵⁹

When the decision was made to end the production of F-22s, Air Force leaders conceded that “[m]uch rides on the F-35's success.”⁶⁰ This is especially so since the Air Force is retiring some 250 fighters to pay for the JSF.⁶¹ Now, however, the F-35's development is troubled by “delays and cost overruns” that have raised the price tag of each airplane to \$95 million.⁶² This spurs some analysts to advocate reviving production of the F-22 and scrapping the JSF.⁶³ They believe that the F-22 is significantly more capable than the F-35, and that only the F-22 can compete against sophisticated air defenses and fifth-generation fighters such as Russia's Sukhoi T-50.⁶⁴

Even so, the QDR's plan for the Air Force follows its overall preference for flowing resources toward fighting the low-tech, nonstate actors of “today's wars.” For that reason, it calls for eight intelligence, surveillance, and

reconnaissance (ISR) wing-equivalents composed primarily of remotely manned aerial vehicles and associated personnel.⁶⁵ Although proliferated throughout the armed forces,⁶⁶ such systems have limited utility outside low-tech, low-threat conflicts. According to published reports, remotely manned systems able to operate in contested environments may be years away.⁶⁷

To the extent defense spending is a “zero-sum” enterprise, the “opportunity cost” of the current allocations of defense resources is real. Although the “seeds” of the next-generation bomber are in the current budget proposal,⁶⁸ those who consider the need for an advanced manned penetrating bomber as indispensable to the nation’s security⁶⁹ may be disturbed by vice chairman General James Cartwright’s very recent comments that seem to question its relevance given “the wars we’re in.”⁷⁰

Air Force leaders are beginning to discuss publicly the consequences of resource decisions on capabilities. In a January 2010 speech, General Schwartz candidly warned of the growing vulnerability of the satellite Global Positioning System (GPS).⁷¹ Additionally, Congress was recently told that “the U.S.’s current aerial refueling capacity is as much as 20 percent shy of what could be needed in major conflict.”⁷²

What is more is that as U.S. ground forces have grown, America’s Air Force continues to shrink in an effort to save money for modernization⁷³—it will soon be its smallest size since its inception in 1947. To deal with reduced manpower, as well as overtaxed resources, General Schwartz announced that “calibrated ambition” was his “theme” for the reshaped Air Force.⁷⁴ As he put it, the Air Force “won’t be able to do all its assigned tasks as comprehensively as it once did.”⁷⁵ According to General Schwartz, the Air Force “will be aiming for simple sufficiency in areas where it’s been accustomed to dominance.”⁷⁶

Dr. Daniel Goure of the Lexington Institute says that General Schwartz’s “words imply a willingness to cede at least a measure of air dominance to potential adversaries such as Russia or China” even though, he says, the lesson of “modern wars is that without dominance of the air the ability to project power forward, particularly on land, is at risk.”⁷⁷ Moreover, it now appears that the Chinese will be fielding a fifth-generation fighter “in the ballpark” with the F-22 by 2018, significantly sooner than many anticipated.⁷⁸

Nevertheless, General Schwartz believes the “key” to meeting both irregular warfare and conventional conflict demands is to leverage and adapt existing capabilities.⁷⁹ Although many air platforms are geared toward conventional war, he believes they can be “tweak[ed] to meet irregular war requirements.”⁸⁰ That may already be happening, as *Inside the Air Force* recently reported that U.S. airmen have been using traditional capabilities creatively to solve the “nuanced” problems of irregular war.⁸¹

Such creativity and flexibility may be exactly what is needed to more economically and effectively address “today’s wars.” In Afghanistan, for example, it is becoming increasingly clear that masses of foreign troops on the ground may be counterproductive. As former Army chief of staff General John Wickham said in late 2008, “[l]arge military forces alienate local populations, succeed less and cost more.”⁸²

Last September *Time Magazine* gave this blunt assessment: “The Afghan insurgency is not a cohesive movement but rather a loose affiliation of groups united by a common goal: *the expulsion of foreign troops*.”⁸³ Thus, “surging” troops into Afghanistan may well exacerbate, not solve, the COIN problem there.⁸⁴

A recent RAND report raises problems that are even more troubling. Entitled *How Insurgencies End*, it makes a number of relevant observations.⁸⁵ In particular, it notes that modern insurgencies last approximately ten years, and that is clearly a problem for U.S. policy makers because even Secretary Gates believes that “Americans will not accept a ‘long slog’ in Afghanistan.”⁸⁶

In addition, although supportive of “Iraq-style” COIN,⁸⁷ the RAND study nevertheless concedes that “anocracies” (which it defines as “a particularly weak form of government in that it is good at neither democracy nor autocracy”) win only about 15 percent of all COIN contests.⁸⁸ Given that the Afghan government is widely viewed as weak and corrupt,⁸⁹ this conclusion is ominous indeed; some observers are already saying that the “surge in Afghanistan isn’t working.”⁹⁰

However, by adopting an “enemy-centric” strategy it may be possible to devise a less resource-demanding solution.⁹¹ It would require reorienting the current “people-centric” approach of “protect[ing] the Afghan” people from the Taliban,⁹² to a more al Qaeda-centered effort. Though narrower in scope than that to which FM 3-24 aspires, it still seems consistent with the president’s “clear and focused goal to disrupt, dismantle, and defeat Al Qaeda.”⁹³ It is a more flexible and adaptive response to an al Qaeda that may be able to rapidly establish “epicenters” other than in Afghanistan.⁹⁴

Focusing on al Qaeda does not require enmeshing a massive American ground presence in a politicized and costly nation-building effort. However, it also would not require abandoning all COIN efforts such as training indigenous military and governmental personnel. True, it would put more emphasis on traditional military means in battling al Qaeda extremists, but that reorientation of resources could pay COIN dividends.

Ralph Peters—a former Army officer considered by many to be an astute military analyst—argues that history demonstrates that success in defeating insurgencies is “at least 90 percent a military mission.”⁹⁵ Peters says that “[w]ell-meaning generals insist that ‘we can’t kill our way out of an insurgency,’ even though, historically, success against insurgents—especially counterrevolutionaries seeking a religious restoration or ethnic supremacy—consistently required killing them in substantial numbers.”⁹⁶

Many experts have advocated airpower-oriented strategies aimed at fighting al Qaeda “from afar.”⁹⁷ This does not, however, mean ignoring the Taliban. If the fear is that they will provide a home for a resurgent al Qaeda, we should not assume FM 3-24’s “softer” approach is the only way to defeat them.

Edward Luttwak, the eminent security theorist, dissects the Israeli Gaza war of 2008 and concludes that aerial bombing can work in irregular war.⁹⁸ Luttwak sardonically observes that given Afghanistan’s muddled history and politics, even if General Stanley McChrystal executes a population-centric, nation-building effort as the “sacrosanct Field Manual 3-24 prescribes,” it may still

need a “century or two” to work.⁹⁹ According to Luttwak: “The better and cheaper alternative would be to resurrect strategic bombing in a thoroughly new way by arming the Taliban’s many enemies to the teeth and replacing U.S. troops in Afghanistan with sporadic airstrikes. Whenever the Taliban concentrate in numbers to attack, they would be bombed.”¹⁰⁰

He admits that it would be an “imperfect solution” but, he says, it “would end the costly futility of ‘nation-building’ in a remote and unwelcoming land.”¹⁰¹ Imperfect solutions, however, may be the best that can be achieved in an austere funding environment.

The Way Ahead

To reiterate, the QDR and other reflections of the defense establishment thinking foresee a future of persistent conflict, mainly focused in failed and failing states. As this paper outlines, the current approach requires large numbers of ground troops ready to win “hearts and minds” via nation-building and stability operations (which DoD now puts on a par with combat operations).¹⁰² Thus, as one observer puts it, “Iraq-style counterinsurgency is fast becoming the U.S. Army’s organizing principle.”¹⁰³ Resources are flowing accordingly; even the chairman of the Joint Chiefs gushes that the “Army is the center of gravity for the U.S. military.”¹⁰⁴

However, the American people are evincing a growing aversion toward involvement in another “Iraq-style” or, for that matter, “Afghan-style” operation. Despite the relative success U.S. forces achieved in Iraq, 60 percent of Americans still oppose the war.¹⁰⁵ Likewise, the most recent poll of Americans regarding Afghanistan shows that a majority now believes the war was “not worth fighting.”¹⁰⁶

Plainly, the American body politic has not shown any appetite for the very kind of operation the QDR favors—and prioritizes resources to conduct. James S. Corum—one of the authors of FM 3-24—points out that the loss of blood and treasure in Iraq has dramatically eroded domestic American support for similar operations.¹⁰⁷ Accordingly, he says that it is unlikely that U.S. troops will be involved with them in a major way in the future “no matter how necessary or justified they might be.”¹⁰⁸

Consider as well that as the United States grows the mass of its ground forces in order to wage protracted, low-intensity conflicts against low-tech adversaries, its most formidable potential opponent is doing just the opposite. DoD’s own report to Congress about China’s military power reveals that “[t]he People’s Liberation Army is pursuing comprehensive transformation from a mass army designed for protracted wars of attrition on its territory to one capable of fighting and winning short-duration, high-intensity conflicts along its periphery against high-tech adversaries—an approach that China refers to as preparing for ‘local wars under conditions of informatization.’”¹⁰⁹

The American people seems to understand instinctively the gravity of the challenge that countries like China can present to vital U.S. interests. Perhaps perceiving the limited relevance of ground forces to threats from high-tech rivals, a 2009 poll found that the majority of the U.S. public believed that the Air Force would be the “most important [service] to America” in future wars.¹¹⁰

Yet at the same time, the wisdom of diminishing the size of America's ground forces in an era of great uncertainty is questionable—and likely unnecessary. As is well documented, even at 4.7 percent of the gross domestic product, that percentage for the defense budget is small as a wartime figure relative to other periods in U.S. history.¹¹¹ The looming internecine fights among the services over budget need not take place—if the country truly recognizes it is at war, and mobilizes accordingly.

Regardless, the fact remains that America is making choices that carry great potential to erode the nation's ability to enjoy air and space preeminence in areas of vital interest over the longer term. Such choices inevitably “provide incentives for [other countries] to build up where the U.S. is pulling back.”¹¹² Objections to diminishing air capabilities, however, are rare and muted. Even General Schwartz admits that there are few vocal airpower supporters in Washington.¹¹³

At least in part, the absence of airpower advocates must be attributed to the Air Force itself. Consider these comments from Under Secretary of Defense Michèle Flournoy about the Air Force's collective *ennui*:

During the 80s and early 90s, the Air Force was on the leading edge in innovative strategic thinking within DoD, driving the development of new concepts of operations and ways of war. The Air Force was the poster child for thought-leadership in the Pentagon. But that has become less and less true, even though we need such thinking more today than ever.¹¹⁴

In short, unless others become airpower's champion, it is quite possible that U.S. capabilities could decline to the point where an adversary could achieve air superiority at least in a given theater, and perhaps even further. Some have raised a cry: shortly before the F-22 program was terminated, author Mark Bowden warned: “Now we have a choice. We can stock the Air Force with the expensive, cutting edge F-22—maintaining our technological superiority at great expense to our Treasury. Or we can go back to a time when the cost of air supremacy was paid in blood of men. . . .”¹¹⁵

We know now what choice was made. Only time will tell the wisdom of that “vexing” decision, as well as the prudence of forgoing airpower dominance in a world where America's most dangerous competitors relentlessly seek it.

Notes

Major General Dunlap retired on June 1, 2010, after more than thirty-four years' service in the U.S. Air Force. The views and opinions expressed are his alone and do not necessarily reflect those of the U.S. government or any of its components.

1. Robert Gates, “Remarks by Secretary of Defense Robert Gates at the Army War College,” (speech, Carlisle, PA, April 16, 2009), transcript available at <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=4404>.
2. “Congress appropriated \$626 billion for DoD's fiscal year 2010 budget and to support current operations.” U.S. Government Accountability Office (GAO), *Quadrennial Defense Review: 2010 Report Addressed Many but Not All Required Items*, (Washington, DC: GAO, April 30, 2010), p. 1, available at <http://www.gao.gov/new.items/d10575r.pdf>.

3. See, e.g., Jim Garamone, "Gates Calls for Significant Cuts in Defense Overhead," American Forces Press Service, May 8, 2010, available at <http://www.defense.gov/news/newsarticle.aspx?id=59082>.
4. Department of Defense, *Quadrennial Defense Review* (Washington, DC: Department of Defense, February 2010), available at http://www.defense.gov/qdr/images/QDR_as_of_12Feb10_1000.pdf (last visited April 29, 2010) [hereinafter "QDR"].
5. GAO, *Quadrennial Defense Review*.
6. QDR, p. 4 (*italics added*).
7. Although this essay will focus on the Air Force, "airpower" writ large includes the air arms of the other armed services. For purposes of this essay, it also includes "space power," which is defined as "[t]he total strength of a nation's capabilities to conduct and influence activities to, in, through, and from space to achieve its objectives." See *Department of Defense Dictionary of Military and Associated Terms*, (Washington, DC: Joint Staff, April 12, 2001, as amended through October 31, 2009), available at http://www.dtic.mil/doctrine/dod_dictionary/data/s/10596.html.
8. QDR, p. 89.
9. Department of Defense, *National Defense Strategy* (Washington, DC: 2008), available at <http://www.defense.gov/pubs/2008NationalDefenseStrategy.pdf> (last visited April 30, 2010).
10. *Ibid.*, p. 20 (*italics added*).
11. Peter L. Bernstein, *Against the Gods: The Remarkable Story of Risk* (New York: Wiley, 1996), p. 261 (quoting Robert Jeffrey).
12. Department of Defense, *National Defense Strategy*, p. 2.
13. Gary D. Solis, *The Law of Armed Conflict* (New York: Cambridge Univ. Press, 2010), p. 4.
14. DoD defines "irregular warfare" as a "violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s). Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capabilities, in order to erode an adversary's power, influence, and will." See *Department of Defense Dictionary of Military and Associated Terms*, available at http://www.dtic.mil/doctrine/dod_dictionary/data/i/19843.html.
15. William Hawkins, "Don't Let Insurgency Planning Drive Force Structure," *Defense News*, October 26, 2009, p. 37.
16. Federal Bureau of Investigation, *Crime in the United States, 2008* (U.S. Department of Justice, September 2009) Expanded Homicide Table 8, available at http://www.fbi.gov/ucr/cius2008/offenses/expanded_information/data/shrtable_08.html (last visited March 25, 2010).
17. John Mueller and Mark G. Stewart, "Hardly Existential: Thinking Rationally about Terrorism," *Foreign Affairs*, April 2, 2010, available at <http://www.foreignaffairs.com/articles/66186/john-mueller-and-mark-g-stewart/hardly-existential>.
18. *Ibid.*
19. See, e.g., John Mueller, "The Atomic Terrorist?" International Commission on Nuclear Non-proliferation and Disarmament, April 30, 2010, http://www.icnnd.org/research/Mueller_Terrorism.pdf.
20. See QDR, and accompanying text at note 26.
21. See, e.g., Thomas Ricks, *Fiasco*, pp. 20–22 (Penguin, 2006) (citing David Kay).
22. Andrew J. Bacevich, "Think Again: What's Our Definition of Victory?" *Newsweek*, December 2008, p. 38.
23. Ilan Berman, "Stagnation Threatens U.S. Arms Superiority," *Defense News*, January 4, 2010, p. 21.
24. QDR, p. 6.
25. *Ibid.*, p. v.
26. *Ibid.*

27. Headquarters, Department of the Army, Field Manual No. 3-24, *Counterinsurgency* (December 15, 2006) [hereinafter FM 3-24], also designated by Headquarters, Marine Corps Combat Development Command, Department of the Navy, as Marine Corps Warfighting Publication No. 3-33.5, available at <http://www.scribd.com/doc/9137276/US-Army-Field-Manual-FM-324-Counterinsurgency>.
28. See Gian P. Gentile, "The Selective Use of History in the Development of American Counterinsurgency Doctrine," *Army History*, Summer 2009, p. 21 (maintaining that FM 3-24 "draws narrowly on a body of writing from the French Revolutionary War school of counterinsurgency theory and practice of the early 1960s").
29. General McCaffrey observed: "We have already made a 100 year war-fighting leap-ahead with MQ-1 Predator, MQ-9 Reaper, and Global Hawk. Now we have loiter times in excess of 24 hours, persistent eyes-on-target, micro-kill with Hellfire and 500 lb [JDAM] bombs, synthetic aperture radar, and a host of ISR [intelligence, surveillance, and reconnaissance] sensors and communications potential that have fundamentally changed the nature of warfare."
See GEN Barry R. McCaffrey to Colonel Mike Meese, United States Military Academy, "After Action Report," memorandum, October 15, 2007, p. 5, available at <http://www.mccaffreyassociates.com/pages/documents/AirForceAAR-101207.pdf>.
30. See FM 3-24, and accompanying text at note 27.
31. Steve Coll, "The General's Dilemma," *New Yorker*, September 8, 2008, available at http://www.newyorker.com/reporting/2008/09/08/080908fa_fact_coll?currentPage=all.
32. "Link Hard, Soft Power," editorial, *Defense News*, September 8, 2008, p. 28.
33. Gordon Lubold, "Do US Prisons Breed Insurgents?" *Christian Science Monitor*, December 20, 2007, available at <http://www.csmonitor.com/2007/1220/p01s01-woiq.html> (citing the figure of 25,000 Iraqis detained).
34. See, e.g., Anthony H. Cordesman, "US Airpower in Iraq and Afghanistan: 2004–2007," Center for Strategic & International Studies, December 13, 2007, available at http://www.csis.org/media/csis/pubs/071213_oif-oef_airpower.pdf.
35. In September of 2007, *USA Today* reported that insurgent deaths already exceeded the total for all of 2006 by 25 percent. See Jim Michaels, "19,000 Insurgents Killed in Iraq since '03," *USA Today*, September 2007, available at http://www.usatoday.com/news/world/iraq/2007-09-26-insurgents_N.htm.
36. Michael M. Dunn, "The Pile-On Effect," Air Force Association, July 9, 2008, available at http://www.afa.org/EdOp/edop_7-10-08.asp.
37. ABC/BBC/ARD/NHK Poll, "Security Gains Reverse Iraq's Spiral Though Serious Problems Remain," news release, March 17, 2008, available at <http://www.abcnews.go.com/images/PollingUnit/1060a1IraqWhereThingsStand.pdf>.
38. FM 3-24, para. 1-67.
39. See, e.g., Robert Scales, "Clausewitz and World War IV," *The Wright Stuff*, September 4, 2008, available at <http://www.maxwell.af.mil/au/aunews/archive/0316/Articles/Clausewitz%20and%20World%20War%20IV.pdf>.
40. Department of Defense, "DoD News Briefing with Secretary Gates and Adm. Mullen from the Pentagon," July 20, 2009 (discussing the 2006 increase in the size of the Army by 65,000 troops and the Marine Corps by 27,000 troops, and announcing an additional increase of 22,000 troops for the Army), available at <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=4447>.
41. Ibid.
42. QDR, pp. vi and 6.
43. FM 3-24, para. 2-42.
44. Gregg Zoroya, "Repeated Deployments Weigh Heavily on U.S. Troops," *USA Today*, January 13, 2010, p. 1, available at http://www.usatoday.com/news/military/2010-01-12-four-army-war-tours_N.htm.

45. See Craig Whitlock, "Pentagon: Troop Raises Too Generous," *Washington Post*, May 8, 2010, at A1, available at <http://www.washingtonpost.com/wp-dyn/content/article/2010/05/07/AR2010050703054.html>.
46. Christopher Drew, "High Costs Weigh on Troop Debate for Afghan War," *New York Times*, November 14, 2009, available at <http://www.nytimes.com/2009/11/15/us/politics/15cost.html>. For a breakdown of this figure, see Jesse Ellison, "Million-Dollar Man," *Newsweek*, January 11, 2010, p. 12.
47. Whitlock, "Pentagon" (citing DoD officials).
48. See, e.g., Matthew Potter, "No Surprise: Personnel Costs Eating Defense Budget Which Affects Buying Hardware," CBS Business Network, December 9, 2009, <http://industry.bnet.com/government/10004454/no-surprise-personnel-costs-eating-defense-budget-which-affects-buying-hardware/>.
49. Erik Holmes and Michael Hoffman, "Aging the Air Force," *Air Force Times*, April 20, 2009, p. 14 (discussing budget cutting regarding the F-22, the T-SAT satellite, the C-17, the CSARX rescue helicopter, and the airborne laser).
50. "USAF 2010 Almanac," *Air Force Magazine*, May 2010, p. 61, available at http://www.airforce-magazine.com/MagazineArchive/Magazine%20Documents/2010/May%202010/0510facts_figs.pdf.
51. See, e.g., QDR, p. 31.
52. Michael Donley and Norton Schwartz, "Moving beyond the F-22," *Washington Post*, April 13, 2009, available at <http://www.washingtonpost.com/wp-dyn/content/article/2009/04/12/AR2009041202268.html>.
53. Ibid.
54. David Fulghum, "Fly F-22 to Hawaii," Ares: A Defense Technology Blog, posted July 23, 2009, <http://www.aviationweek.com/aw/blogsmain/index.jsp>.
55. Ibid. See also "F-22 vs. F-35," Issue Briefs, Air Force Association, available at http://www.afa.org/ProfessionalDevelopment/IssueBriefs/F-22_v_F-35_Comparison.pdf (last accessed May 9, 2010); and Robert S. Dudley, "Air Supremacy in a Dwindle," *Air Force Magazine*, December 2009, p. 2.
56. Gordon Lubold, "US Needs More F-22 Fighters," *Christian Science Monitor*, June 19, 2009, <http://www.csmonitor.com/USA/Military/2009/0618/p02s09-usmi.html>.
57. Ibid.
58. VADM William R. Burke, "Not Business as Usual," U.S. Naval Institute *Proceedings*, May 2010, pp. 27, 28.
59. Robert Gates, "Remarks to the Heritage Foundation," (May 13, 2008), available at <http://www.defense.gov/speeches/speech.aspx?speechid=1240>.
60. Donley and Schwartz, "Moving beyond the F-22."
61. Bruce Rolfen, "Despite Problems, Air Force Plans to Stick with F-35," *Air Force Times*, April 26, 2010, p. 22.
62. Lisa Daniel, "Defense Secretary to Recommend Navy Admiral to Head F-35 Program," American Forces Press Service, Mar. 25, 2010, available at <http://www.af.mil/news/story.asp?id=123196699>.
63. David Crane, "F-35 Lightning II Joint Strike Fighter (JSF) Too Expensive?" *Defense Review*, March 15, 2010, available at <http://www.defensereview.com/scrap-the-f-35a-and-f-35c-jsf-joint-strike-fighter-variants-and-revive-the-f-22-raptor/>.
64. Ibid. The Russians plan to procure 300 aircraft while the Indians will acquire 250 of the fighters. See Maxim Pyadushkin, "T-50 Flight Tests Get Underway," *Aviation Week*, March 2010, p. 27.
65. QDR, p. 46.
66. See, e.g., Eric Hagerman, "A Field Guide to Flying Robots," *Popular Science*, March 2010, p. 36.
67. "MQ-X Development Suspended to Flesh Out Additional Capabilities," *Inside the Air Force*, April 30, 2010, p. 3.

68. Jim Garamone, "Budget Request Continues Defense Reform Agenda," American Forces Press Service, February 1, 2010 (quoting Robert F. Hale, DoD Comptroller), available at <http://www.af.mil/news/story.asp?id=123188495>.
69. See, e.g., Robert J. Elder, "Critical Need for Advanced Manned Penetrating Bomber," Air Force Association, May 14, 2010, available at <http://www.afa.org/EdOp/PDFs/LongRangeBomberNeed.pdf>.
70. General Cartwright was quoted as follow: "The question is, how many bomber squadrons do we need versus how many troops expert at stability operations," Cartwright said.
 "He did not answer his own question directly, but reiterated his belief that he doesn't see the United States moving away from the current kinds of conflicts 'any time soon.'
 "Cartwright drove home his point by adding: 'People want to buy high-end' platforms, like bombers, 'but the low-end is the war we're in.'"
 See John T. Bennett, "Cartwright: U.S. Likely to Remain at War for a Decade," *Defense News*, May 13, 2010, available at <http://www.defensenews.com/story.php?i=4624431&s=LAN>.
71. Gen Norton Schwartz, "Keynote Address at the Air, Space, and Cyberspace Power in the 21st Century Conference" (Washington, DC, January 20, 2010), available at <http://www.af.mil/shared/media/document/AFD-100121-002.pdf>.
72. John Reed, "U.S. Aerial Refueling Capacity Deemed Insufficient," *Defense News*, April 28, 2010, available at <http://www.defensenews.com/story.php?i=4603066>.
73. See, e.g., Lauro M. Colarusso, "The Deepest Cuts," *Defense News*, January 16, 2006, p. 14.
74. John A. Tirpak, "The Adequate Air Force," *Air Force Magazine*, March 2010, p. 8 (quoting General Norton A. Schwartz).
75. Ibid.
76. Ibid.
77. Daniel Goure, "Say Goodbye to U.S. Air Dominance—and Perhaps to Victory in the Next War," Lexington Institute, April 23, 2010, <http://www.lexingtoninstitute.org/say-goodbye-to-us-air-dominance---and-perhaps-to-victory-in-the-next-war?a=1&c=1171>.
78. Jim Wolf, "RPT—New Chinese Fighter Jet Expected by 2018: US Intel," Reuters, May 20, 2010, available at <http://www.reuters.com/article/idUSN2117451920100521?type=marketsNews>.
79. Carlos Munoz, "USAF Can Support IW, Conventional Requirements in Future Budget Cycles," *Inside the Air Force*, May 7, 2010, p. 3.
80. Ibid.
81. Ibid., p. 4.
82. John A. Wickham, "Why a Smaller Footprint Is Good," *Arizona Daily Star*, November 9, 2008, available at <http://www.azstarnet.com/allheadlines/266151>.
83. Aryn Baker, "How Crime Pays for the Taliban," *Time*, September 7, 2009 (italics added), available at <http://www.time.com/time/magazine/article/0,9171,1919154,00.html>. See also Robert A. Pape, "To Beat the Taliban, Fight from Afar," *New York Times*, October 15, 2009 ("the more Western troops we have in Afghanistan, the more the local residents have viewed themselves under foreign occupation . . ."), available at <http://www.nytimes.com/2009/10/15/opinion/15pape.html>.
84. See also David Ignatius, "The Right Words for a War President," *Washington Post*, December 29, 2009, p. 29 (discussing a report from a Taliban website that the group was "ready to give legal guarantee [not to interfere in the internal affairs of other countries] if the foreign forces withdraw from Afghanistan").
85. Ben Connable and Martin C. Libicki, *How Insurgencies End* (RAND, 2010), available at http://www.rand.org/pubs/monographs/2010/RAND_MG965.pdf. A ten-year effort could cost a trillion dollars. See Peter Baker, "How Obama Came to Plan for 'Surge' in

- Afghanistan,” *New York Times*, December 6, 2009, p. 1 (discussing private budget memo the president reportedly received).
86. Julian E. Barnes, “Americans Won’t Accept a ‘Long Slog’ in Afghanistan War,” *Los Angeles Times*, July 19, 2009, available at <http://articles.latimes.com/2009/jul/19/nation/na-gates19>.
87. Connable and Libicki, *How Insurgencies End*, p. 119.
88. *Ibid.*, p. xiv.
89. See, e.g., Karen DeYoung, “U.S. Official Resigns over Afghan War,” *Washington Post*, October 7, 2009, at 1 (discussing a memo from a Foreign Service official that is reported to have concluded that “the corrupt, U.S. backed national government is rejected” by Afghans); and Michael Isikoff et al., “Contempt for Karzai,” *Newsweek*, April 19, 2010, p. 10.
90. Jackson Diehl, “Obama’s Warring Team,” *Washington Post*, May 14, 2010, p. A15.
91. See Gentile, “The Selective Use of History in the Development of American Counterinsurgency Doctrine,” p. 22 (saying that an “enemy-centric” approach is “supported by numerous historical cases” and describing Maj Gen Charles E. Callwell as its “most noted proponent”).
92. See Gordon Lubold, “U.S. Aims to Wage a Safer War,” *Christian Science Monitor*, March 8, 2010, at 16 (quoting GEN Stanley R. McChrystal).
93. Office of the Press Secretary, White House, “Remarks of the President on the New Strategy for Afghanistan and Pakistan,” March 27, 2009, available at http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-a-New-Strategy-for-Afghanistan-and-Pakistan/.
94. See, e.g., Andrew Lee Butters, “The Next Afghanistan? How Yemen Has Become the Latest Haven for al-Qaeda,” *Time*, October 5, 2009, p. 42.
95. Ralph Peters, “COIN Lies We Love: Dissecting the Myth That the Military Has Only a Supporting Role,” *Armed Forces Journal*, April 2009, available at <http://www.afji.com/2009/04/3978447/>.
96. *Ibid.*
97. See, e.g., Pape, “To Beat the Taliban, Fight from Afar,”; and Andrew J. Bacevich, “Give Up on Democracy in Afghanistan,” *The Atlantic*, July/August 2009, p. 57.
98. Edward Luttwak, “In Praise of Aerial Bombing,” *Foreign Policy*, March/April 2010, p. 68.
99. *Ibid.*, p. 70.
100. *Ibid.*
101. *Ibid.*
102. Department of Defense Directive (DoDD) 3000.5, “Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations,” November 28, 2005, para 4.1 (“Stability operations are a core U.S. military mission that . . . shall be given priority comparable to combat operations”), available at <http://www.dtic.mil/whs/directives/corres/pdf/300005p.pdf> (last visited April 7, 2008).
103. Andrew J. Bacevich, “The Petraeus Doctrine,” *The Atlantic*, October 2008, available at <http://www.theatlantic.com/doc/200810/petraeus-doctrine>.
104. ADM Michael G. Mullen, “What I Have Learned about the Army,” *Joint Force Quarterly*, 1st Qtr., 2009, p. 8, available at http://www.ndu.edu/inss/Press/jfq_pages/editions/i52/2.pdf.
105. Sixty percent oppose the war. See CNN/Opinion Research Corporation Poll, January 22–24, 2010, available at <http://www.pollingreport.com/iraq.htm>.
106. Scott Wilson and Rajiv Chandrasekaran, “Obama Makes Personal Diplomacy Part of Afghan Strategy,” *Washington Post*, May 9, 2010, p. 1, available at <http://www.washingtonpost.com/wp-dyn/content/article/2010/05/08/AR2010050803384.html> (citing ABC News/*Washington Post* poll).

107. James S. Corum, *Bad Strategies: How Major Powers Fail in Counterinsurgency* (Minneapolis, MN: Zenith Press, 2008), p. 238.
108. Ibid.
109. Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China* (Washington, DC: 2009), p. I, available at http://www.defense.gov/pubs/pdfs/China_Military_Power_Report_2009.pdf (last visited May 10, 2010).
110. Air Force Public Affairs Communication Research Bulletin #94, Apr. 14, 2009, citing Everett Group *Defense Trends* survey, March 3–19, 2009.
111. See “Relative Size of U.S. Military Spending, 1940–2003,” TruthAndPolitics.org, March 26, 2006, <http://www.truthandpolitics.org/military-relative-size.php>.
112. MacKenzie Eaglen, “How to Dismantle a Military Superpower,” *Defense News*, September 14, 2009, p. 61.
113. Vago Muradian, “Schwartz: Other Services Must Be Able to Depend on Us,” *Air Force Times*, April 26, 2010, p. 24.
114. Hon. Michèle Flournoy, “Remarks to the US Air Force Senior Leader Orientation Course” (speech, Air University, August 14, 2009), available at <http://www.au.af.mil/au/aunews/archive/2009/0419/Articles/USDPRemarks.htm>.
115. Mark Bowden, “The Last Ace,” *The Atlantic*, March 2009, p. 58.